

Oil & Gas  
LNG



## Department of Energy

Washington, DC 20585

FEB 16 2007

Ms. Diane Smith  
Water Quality Protection Division  
U.S. Environmental Protection Agency  
Region 6  
1445 Ross Avenue  
Dallas, Texas 75202-2733

Dear Ms. Smith:

The U.S. Department of Energy (DOE) appreciates the opportunity to submit comments on the proposed general NPDES permit GMG290000 for oil and gas exploration, development, and production facilities located in the western portion of the Outer Continental Shelf of the Gulf of Mexico. The U.S. Environmental Protection Agency (EPA) published notice of the proposed permit in the Federal Register on December 21, 2006 (71 FR 76667).

We support most of the conditions and requirements in the proposed permit. In particular we commend EPA for its findings that the potential impact of produced water discharges into the hypoxic zone is insignificant, and that no additional permit requirements relating to those discharges are needed at this time. DOE sponsored the Argonne National Laboratory study that characterized produced water discharges and was used as the basis for EPA's decision. We are pleased that EPA and its modelers concur with the conclusions of that report. Ideally, good science should be used to influence environmental policy in this manner. We hope that this type of cooperative interagency/industry effort will also be used in the future.

In contrast to our support of most of the proposed permit language, we do have particular concerns about the proposed requirements relating to cooling water intakes. Our comments on the proposed permit are described in an attachment. If you have any questions on these comments, please contact Nancy Johnson of my office at 202-586-6458 or [nancy.johnson@hq.doe.gov](mailto:nancy.johnson@hq.doe.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Slutz".

James A. Slutz  
Deputy Assistant Secretary  
Office of Oil and Natural Gas

Attachment



Printed with soy ink on recycled paper

**Department of Energy (DOE) Comments on Proposed General NPDES Permit  
GMG290000 Western Portion of the Outer Continental Shelf of the Gulf of Mexico**

DOE's primary concern with the draft permit relates to Section I.A.12, Cooling Water Intake Structure Requirements. We are aware that EPA adopted final Phase III cooling water intake structure regulations that apply to new offshore oil and gas facilities on June 16, 2006. DOE worked closely with EPA for nearly a decade as the Agency developed three phases of cooling water intake regulations<sup>1</sup>. We have an intimate understanding of how and why EPA selected the suite of requirements that went into the rules. The large majority of EPA's investigations rightly focused on the electric power industry, which is far and away the largest user of cooling water. However, EPA devoted relatively little time and effort to study cooling water use at offshore oil and gas facilities. In fact, EPA never realized that offshore oil and gas facilities withdrew water in large enough quantities to fall within the scope of the Phase I rule (all new facilities) until a member of the DOE interagency team made them aware of this oversight. By then it was too late to include the offshore facilities in the nearly completed Phase I rule. As a result, EPA needed to move its review of cooling water intakes at offshore facilities out of the Phase I rule and study it as part of the Phase III rule.

We are disappointed that the Phase III rule places so many rigorous requirements on offshore facilities. EPA carried over many of the elements of the rigorous Phase I rule as the basis for the new offshore oil and gas facility portion of the Phase III rule. There are many fundamental differences between a large onshore power plant and a much smaller offshore oil and gas facility. The logistical issues relating to monitoring and testing are vastly different. We are concerned that EPA did not carefully evaluate these issues as they developed the Phase III rule. Nevertheless, the Phase III rule is final now.

We acknowledge that this Region 6 general permit must follow the national Phase III rule. However, we do encourage EPA to allow the most flexibility possible in the way the national rule is interpreted into permit language. Some elements of the requirements are logistically very challenging at offshore facilities (e.g., weekly visual monitoring or head loss measurements when intakes are deep below the sea surface; entrainment monitoring).

Some specific comments are outlined below.

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<sup>1</sup> EPA agreed to develop cooling water intake structure regulations under a 1995 Consent Decree. EPA undertook three rulemaking phases that address cooling water intakes:

- EPA published final Phase I regulations addressing cooling water intake structures at new power plants, factories, and other businesses that use cooling water on December 18, 2001 (66 FR 65256).
- EPA published final Phase II regulations addressing cooling water intake structures at existing power plants withdrawing 50 million gallons per day or more on July 9, 2004 (69 FR 41576).
- EPA published final Phase III regulations addressing existing facilities other than large electric generating plants, and also new offshore and coastal oil and gas extraction facilities on June 16, 2006 (71 FR 35006).

## 1. Pages 26 and 27, Industry-Wide Baseline Study

The proposed permit requires operators of all new fixed facilities to conduct a baseline biological study at each platform or to participate in an industry-wide study. Each study must include sufficient information to characterize the biological community in the vicinity of the intake structure and to characterize the effects of the cooling water intake structure's operation on aquatic life. This biological characterization must include any available existing information along with field studies to obtain localized data. The proposed permit lists seven different categories of information that must be included in the study. Each study will be complicated and costly.

DOE supports the opportunity for industry to join together to conduct an industry-wide study rather than having each new facility bear the expense and complexity of doing the studies independently. In addition to reducing the regulatory burden on the industry, an industry-wide study reduces the amount of material that EPA's permitting staff must review and evaluate. Much of the Gulf of Mexico OCS water environment has similar characteristics and will have similar species of fish and invertebrate animals. EPA can gain sufficient knowledge of the species and life-stage distribution potentially subject to impingement and entrainment at offshore platforms by allowing an industry-wide study.

We interpret the proposed permit to allow an industry-wide study only for the baseline biological study portion of the requirements. DOE recommends that the permit be revised to allow an industry-wide study to be conducted to cover all aspects of the cooling water intake structure requirements section. For example, the industry-wide study could be expanded to also include:

- Description of the design and operation of the technologies including fish handling and return systems that the facility will utilize to maximize the survival of species expected to be most susceptible to impingement.
- For those new fixed facilities that do not employ sea chests as cooling water intake structures, a narrative description of the design, operation, and construction technologies that the facility will utilize to minimize entrainment of those species most susceptible to entrainment.
- Design calculations, drawings, and estimates to support the design technologies.
- Description of the design, structure, equipment, and operation used to meet the through-screen velocity requirement.
- Weekly visual inspections or remote monitoring devices during the period the cooling water intake structure is in operation to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed.

- Entrainment monitoring to evaluate entrainment rates for each species over a 24-hour period and no less than biweekly during the primary period of reproduction, larval recruitment, and peak abundance.
- Quarterly intake velocity monitoring at the point of entry through the intake device.

We also note that the industry-wide study appears to be an option just for fixed facilities. Concerning non-fixed facilities, we agree with EPA that a baseline biological study need not be required. However, we suggest that EPA allow an industry-wide study for all of the other aspects of this section that apply to non-fixed facilities.

## 2. Page 30, c) Cooling Water Intake Structure Requirements

Item 2 in each of the three subsections under section c) requires the operator to minimize impingement mortality through the use of intake design and construction technologies. This language is based on 40 CFR 125.134 (b) (4), which states:

“(4) You must select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish if the Director determines that: [emphasis added]

- (i) There are threatened or endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure; or
- (ii) Based on information submitted by any fishery management agency(ies) or other relevant information, there are migratory and/or sport or commercial species of impingement concern to the Director that pass through the hydraulic zone of influence of the cooling water intake structure; or
- (iii) Based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in paragraphs (b)(2) and (5) of this section, would still contribute unacceptable stress to the protected species, critical habitat of those species, or species of concern”

One important distinction between the language in the proposed permit and that in the regulations is the decision-making discretion “if the Director determines that ...” in the regulations. The proposed permit does not provide any opportunity for the Director to exercise that discretion. The fact sheet supporting the proposed permit requirements gives no indication that the Director has already made the determination that any of the three special conditions to trigger the requirement has been met. Therefore, DOE recommends that the permit either drop the language requiring minimization of impingement mortality, or that the permit be revised to include the “Director’s discretion” language.

We do note that the proposed requirements for new fixed facilities that do not employ sea chests include requirements to minimize both impingement mortality and entrainment. The comment explained in the previous paragraph applies only to the impingement mortality portion of those

requirements. The Director does not need to make any determination for the entrainment portion to be applicable.

### 3. No Opportunity for Track II Compliance Approach

The Phase III rules allow fixed offshore facilities an alternative Track II approach to complying with the rule (40 CFR 125.134 (c)). The Track II alternative allows fixed facilities to employ alternative technologies that the facility demonstrates provide comparable performance to meeting the 0.5 feet/second velocity standard, and for fixed facilities without sea chests, the requirement to minimize entrainment. A Track II demonstration generally requires consideration of site-specific factors. The demonstration must include a showing that the impacts to fish and shellfish, including important forage and predator species, will be comparable to those that would result by implementing the standard Track I requirements.

Although the Phase III regulations allow a Track II alternative, the proposed permit does not include Track II. We believe that offshore operators should be given the opportunity to utilize all of the flexibility and options encompassed by the Phase III regulations. We recommend that the permit be revised to allow operators to follow a Track II approach if they can make the necessary demonstration.

### 4. Pages 31 and 32 – Monitoring Requirements

This comment is not substantive – rather we point out some editorial errors. The text here appears to have been cut from the Phase III regulations and pasted here. The permit writer modified the sentence structure to meet the format of permit conditions. In several places, the cutting and pasting results in incomplete sentence structure. For example, look at sentences 1 and 3 in paragraph 1 under New Non-Fixed Facilities. We recommend that this section of the permit be reviewed and edited.